

Title (en)

IMPROVED SYSTEM FOR THE AUTOMATIC RECOVERY OF PLAY BETWEEN A WORM AND WORM GEAR

Publication

EP 0270159 A3 19890419 (EN)

Application

EP 87202180 A 19871109

Priority

IT 6789486 A 19861202

Abstract (en)

[origin: EP0270159A2] Improved system for the automatic recovery of play between a worm (18) and worm wheel (16), constituted by one or more elastic elements (55) of the cup spring type or the like, acting normally to the axis of rotation of the worm (18). The system is advantageously used in working devices, particularly welding robots, or as a general universal manipulator and in all cases where exact cyclic repetitive positioning is required.

IPC 1-7

F16H 55/24

IPC 8 full level

F16H 1/16 (2006.01); **F16H 55/24** (2006.01); **F16H 57/12** (2006.01); **H02K 7/116** (2006.01)

CPC (source: EP US)

F16H 1/16 (2013.01 - EP US); **F16H 55/24** (2013.01 - EP US); **H02K 7/1166** (2013.01 - EP US); **F16H 2057/0213** (2013.01 - EP US); **Y10T 74/19575** (2015.01 - EP US); **Y10T 74/19623** (2015.01 - EP US); **Y10T 74/19828** (2015.01 - EP US)

Citation (search report)

- [X] FR 2538063 A1 19840622 - CONST CENTRE ATEL [FR]
- [Y] DE 1807553 A1 19700618 - HEIDOLPH ELEKTRO KG
- [XP] DD 249516 A1 19870909 - ZEISS JENA VEB CARL [DD]
- [X] DE 2619989 A1 19761125 - PHILIPS NV
- [A] DE 1897711 U 19640730 - DUFF NORTON CO [US]

Cited by

EP1881237A1; GB2251521A; FR2647175A1; EP1676768A1; JP2019536686A; US6357313B1; US6890279B2; WO9965758A1; WO9911502A1; WO2007049444A1; WO2018095639A1; WO0194732A1; US8250940B2; US6491131B1; US6725964B2

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